

AMENDMENTS TO THE CLAIMS

Please amend claims 21, 26-29, 32, and 35-37, such that the status of the claims is as follows:

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1-20. (Canceled)

21. (Amended) A thin film structure having lateral composition modulations, the thin film structure comprising:

a substrate; [[and]]

a plurality of layers deposited upon the substrate, each of the plurality of layers being composed of at least two ballistically-separated components, each component having been simultaneously deposited from a different deposition direction [[at a]] different than deposition directions from which each of the remaining components were deposited and at a deposition angle, each deposition direction being measured in a plane of the thin film structure and each deposition angle being measured with respect to a vertical line substantially normal to [[a]] the plane of the thin film structure; and

a top surface of each of the plurality of layers being characterized by an uneven growing film topography comprising at least two surfaces, each of which is oriented to collect more of one of the at least two components than mounds and valleys that result in each component tending to accumulate on sides of the mounds different than the sides on which the remaining components tend to accumulate during simultaneous deposition of the at least two components; and ~~a plurality of layers deposited upon the growing film topography, each of the plurality of layers having a ballistic separation of the at least two components.~~

22. (Previously presented) The thin film structure of claim 21 wherein each deposition angle is in a range of about 60° to about 90°.

23. (Previously presented) The thin film structure of claim 21 wherein each deposition angle is in a range of about 75° to about 90°.

24. (Previously presented) The thin film structure of claim 21 wherein each of the at least two components was deposited at substantially similar deposition rates.

25. (Previously presented) The thin film structure of claim 21 wherein each of the at least two components was deposited at differing deposition rates.

26. (Amended) The thin film structure of claim 21 wherein ~~angles formed between~~ a sum of the deposition angles of [[pairs]] any two of the at least two components [[are]] is in a range of about 90° to about 180°.

27. (Amended) A thin film structure having lateral composition modulations, the thin film structure comprising:

a substrate; [[,]]

a plurality of layers deposited upon the substrate, each of the plurality of layers being composed of a first component [[,]] and a second component ballistically separated from the first component, the first component having been deposited from a first deposition direction at a first deposition angle and the second component having been deposited from a second deposition direction different than the first deposition direction at a second deposition angle different than the first deposition angle, the first and second deposition directions being measured in a plane of the thin film structure and the first

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and second deposition angles being measured with respect to a vertical line perpendicular to [[a]] the plane of the thin film structure; and  
a top surface of each of the plurality of layers being characterized by an uneven growing film topography comprising mounds and valleys, a first surface and a second surface, the a first side of the mounds surface being oriented to collect more atoms of the first component than the second component during simultaneous deposition of the first and second components and the a second side of the mounds surface being oriented to collect more atoms of the second component than the first component during simultaneous deposition of the first and second components; ~~and a plurality of layers deposited upon the growing film topography, each of the plurality of layers having a ballistic separation of the first and second components.~~

28.(Amended) The thin film structure of claim 27 wherein the first and second deposition ~~angle is~~ angles are each in a range of about 60° to about 90° ~~and the second deposition angle is in a range of about 60° to about 90°.~~

29.(Amended) The thin film structure of claim 27 wherein the first and second deposition ~~angle is~~ angles are each in a range of about 75° to about 90° ~~and the second deposition angle is in a range of about 75° to about 90°.~~

30.(Previously presented) The thin film structure of claim 27 wherein a deposition rate of the first component is substantially equal to a deposition rate of the second component.

31.(Previously presented) The thin film structure of claim 27 wherein a deposition rate of the first component does not equal a deposition rate of the second component.

32.(Amended) The thin film structure of claim 27 wherein ~~an angle formed between~~ a sum of the first and second deposition angles is in a range of about 120° to about 180°.

33.(Previously presented) The thin film structure of claim 27 wherein the modulations in the lateral composition of the thin film structure is periodic.

34.(Previously presented) The thin film structure of claim 27 wherein the first direction is substantially opposite the second direction.

35. (Amended) An anisotropic thin film structure comprising:

a substrate; [[,]]

a plurality of layers deposited upon the substrate, each of the plurality of layers being composed of a first component [[,]] and a second component ballistically separated from the first component, the first component having been deposited from a first deposition direction at a first deposition angle and the second component having been deposited from a second deposition direction substantially opposite the first deposition direction at a second deposition angle ~~different than the first deposition angle~~, the first and second deposition directions being measured in a plane of the thin film structure and the first and second deposition ~~directions~~ angles being measured with respect to a vertical line perpendicular to [[a]] the plane of the thin film structure, ~~the thin film structure~~; and

a top surface of each of the plurality of layers being characterized by an uneven growing film topography comprising a first surface and a second surface, the mounds and valleys, first surface being oriented wherein opposing sides of the mounds each tend to collect more atoms of one of the first and second components component than the other of the first and second components

component during simultaneous deposition of the first and second components ~~and the second surface being oriented to collect more atoms of the second component than the first component during simultaneous deposition of the first and second components; and a plurality of layers deposited upon the growing film topography, each of the plurality of layers having a ballistic separation of the first and second components.~~

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36.(Amended) The anisotropic thin film structure of claim 35 wherein the first and second deposition angle is angles are each in a range of about 60° to about 90° ~~and the second deposition angle is in a range of about -60° to about -90°.~~

37.(Amended) The anisotropic thin film structure of claim 35 wherein the first deposition and second angle is angles are each in a range of about 75° to about 90° and the second deposition angle is in a range of about -75° to about -90°.

38.(Previously presented) The anisotropic thin film structure of claim 35 wherein a deposition rate of the first component is substantially equal to a deposition rate of the second component.

39.(Previously presented) The anisotropic thin film structure of claim 35 wherein a deposition rate of the first component does not equal a deposition rate of the second component.

40.(Previously presented) The anisotropic thin film structure of claim 35 wherein the modulations in the lateral composition of the thin film structure is periodic.

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